

**R E M A R K S**

Reconsideration of this application, as amended, is respectfully requested.

**RE: THE ALLOWABLE SUBJECT MATTER**

The Examiner is thanked for conducting a telephone interview on December 11, 2009, in which the Examiner indicated that claims 5-8 would be allowable if the rejection of those claims under 35 USC 112, second paragraph, is overcome.

Independent claim 5 has been amended to clarify that the base material powder is produced when the base material at a surface of the fatigue crack is ground in contact with the particles due to opening and closing of the fatigue crack in the base material. See, for example, the disclosure in the specification at page 10, lines 13-25.

In addition, claims 5, 7 and 8 have been amended to make some minor grammatical improvements so as to put the claims in better form for issuance in a U.S. patent.

Accordingly, it is respectfully submitted that claims 5-8 as amended are in full compliance with the requirements of 35 USC 112, second paragraph, and it is respectfully requested that the rejection thereunder be withdrawn.

No new matter has been added, and no new issues with respect to patentability have been raised.

Accordingly, it is respectfully requested that the amendments to claims 5, 7 and 8 be approved and entered, and it is respectfully submitted that claims 5-8 are now in condition for immediate allowance.

RE: THE DRAWINGS

It is respectfully requested that the Examiner check item 10 of the Office Action Summary sheet in order to acknowledge that the drawings filed with the application papers have been accepted.

RE: CLAIMS 9 and 10

Independent claim 9 has been amended to correctly recite that the particles have diameters of 2  $\mu\text{m}$  to 40  $\mu\text{m}$ , as recited in originally filed independent claim 9. In addition, claim 9 has been amended to make a minor grammatical improvement at line 6. No new matter has been added, and it is respectfully requested that the amendments to claim 9 be approved and entered and that the rejection of claims 9 and 10 under 35 USC 112, second paragraph, be withdrawn.

In addition, it is respectfully submitted that independent claim 9 and claim 10 depending therefrom patentably distinguish over JP 50-005599 ("Honjo") cited by the Examiner.

On page 2 of the Office Action, the Examiner asserts that Honjo discloses a paste to be applied to a desired portion of a base material for at least one of restraining fatigue crack growth in the base material and detecting fatigue crack in the base material. As support, the Examiner points to the Abstract of Honjo.

It is respectfully pointed out, however, that the Abstract of Honjo merely discloses that "[t]he paste is prepd. by (1) mixing a low mol. wt. curing resin with a curing agent and crosslinking agent to prepare a binder, and (2) mixing the binder with a magnetic powder, a pigment and a surfactant, in a homogeneous kneading step."

That is, the Abstract of Honjo merely discloses a paste which is prepared by mixing a binder with a magnetic powder, a pigment and surfactant. And it is respectfully submitted that the Abstract of Honjo completely fails to disclose or suggest a paste to be applied to a desired portion of a base material for at least one of restraining fatigue crack growth in said base material and detecting fatigue crack in said base material, as according to the present invention as recited in independent claim 9.

For the Examiner's reference, set forth below is a translation of the disclosure in Honjo at column 1, lines 11-21:

In the case where there is a crack or a pinhole at the surface or a relatively

shallow portion under the surface of a metal having magnetism, when a magnetic flaw detector flows a current through the magnetic body, a drift current of magnetic flux occurs only at the defected portion and the magnetic flux leaks into the air because the magnetic resistance of that portion is larger than that of other sound portions. In the case where the magnetic flux leaks into the air, a magnetic pole is generated at that portion, and therefore, when magnetic powder is sprinkled thereto, the magnetic powder adheres to the magnetic pole and a minute defect, which is invisible to the naked eye, can be easily detected.

That is, Honjo merely discloses at column 1, lines 11-21 that when a magnetic current flows through a metal having magnetism, magnetic powder sprinkled thereto will adhere to defective portions thereby making detection of the defective portions easier.

Honjo further discloses at column 3, lines 32-40:

In the magnetic powder paste according to the present invention, the magnetic powder certainly contained in each magnetic body is dispersed uniformly, and therefore, in the case where the magnetic powder is used in a wet type magnetic flaw detection by being dispersed into the water and churned by a pump with a tank, the magnetic powder can be used as it is without new need of a surface acting agent.

Further, when the magnetic powder paste is dispersed in the water and the deposited magnetic powder is separated, particles of the magnetic powder are completely surrounded by a mixture of the coloring agent and the binder, and become almost spherical shapes to be deposited.

That is, Honjo discloses at column 3, lines 32-40 an alternate embodiment in which when the paste is distributed in water, the magnetic particles are surrounded by the coloring agent thereby making it easier to see where the magnetic particles are deposited on the metal. In this connection, it is noted that a magnetic flaw detector is a necessary element in all of the embodiments disclosed by Honjo. By contrast, when the paste of the present invention as recited in independent claim 9 is used to detect a fatigue crack in a base material, a change in color appears and the crack can be visually recognized. See, for example, the disclosure in the specification at pages 10-12. And it is respectfully submitted that the paste of Honjo itself is unable to achieve this advantageous effect of the paste of the present invention as recited in amended independent claim 9, which does not rely on a magnetic flaw detector.

In summary, it is respectfully submitted that Honjo fails to disclose or suggest a paste as according to amended independent claim 9 which is applied to a desired portion of a base material for at least one of restraining fatigue crack growth in a base material and detecting fatigue crack in the base material. And it is respectfully submitted that the paste disclosed in Honjo cannot achieve the advantageous effect of the paste of the claimed present invention which, when applied to a base material,

is able to at least one of restrain fatigue crack growth and detect a fatigue crack in the base material.

In view of the foregoing, it is respectfully submitted that amended independent claim 9 and claim 10 depending therefrom clearly patentably distinguish over the relevant fair teachings of Honjo under 35 USC 103, along with allowable claims 5-8.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

/Douglas Holtz/

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